

James A. Storer  
89 South Great Rd.  
Lincoln, MA 01773  
*phone: 781-259-1198*  
*email: storer@cs.brandeis.edu*

June 21, 2005

**ATTN: Patent Application 10/803,507**

Mr. Jean B. Jeanglaude  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
*phone: 571-272-1804*

Dear Mr. Jeanglaude:

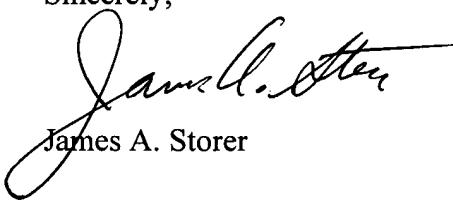
As per our phone conversation last week, enclosed are copies you requested of references from the information disclosure statement of my patent application 10/803,507: entries 2, 5, and 10 of sheet 3, all 10 entries of sheet 4, and all five entries of sheet 5.

Also as we discussed, when compiling these documents I noticed two errors in the information disclosure forms (form 1449):

- The page numbers for the third entry of sheet 4 should be 340-351. Attached are a copy of the five information disclosure sheets with this error corrected.
- When transferring the references from my initial application to the information disclosure forms, by mistake I omitted one of the references (the third of the non-patent references with a first author of Burns). Attached is a supplemental information disclosure form containing this single reference, along with a copy of that paper.

Thank you.

Sincerely,



James A. Storer

Enclosures

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**Complete if Known****INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT***(Use as many sheets as necessary)*

Sheet 1 of 5

Application Number	10/803,507
Filing Date	03/18/2004
First Named Inventor	Storer
Art Unit	
Examiner Name	Jeanglaude
Attorney Docket Number	

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US-4,366,551	12-28-1982	Holtz	all pages
		US-4,558,302	12-10-1985	Welch	all pages
		US-4,646,061	02-24-1987	Bledsoe	all pages
		US-4,701,745	10-20-1987	Waterworth	all pages
		US-4,730,348	03-08-1988	MacCrisken	all pages
		US-4,814,746	03-21-1989	Miller et al.	all pages
		US-4,876,541	10-24-1989	Storer	all pages
		US-4,905,297	02-27-1990	Langdon et al.	all pages
		US-4,906,991	03-06-1990	Fiala et al.	all pages
		US-5,003,307	03-26-1991	George et al.	all pages
		US-5,016,009	06-11-1991	George et al.	all pages
		US-5,126,739	06-20-1992	George et al.	all pages
		US-5,153,591	10-06-1992	Clark	all pages
		US-5,175,543	12-29-1992	Lantz	all pages
		US-5,179,378	06-12-1993	Ranganathan et al.	all pages
		US-5,253,325	10-12-1993	Clark	all pages
		US-5,379,036	01-03-1995	Storer	all pages
		US-5,479,654	12-26-1995	Squibb	all pages
		US-5,608,396	03-04-1997	Cheng et al.	all pages

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> ~Number <sup>4</sup> ~Kind Code <sup>5</sup> (if known)				

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**Substitute for form 1449/PTO**

## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

*(Use as many sheets as necessary)*

Sheet 2

of 5

**Complete if Known**

Application Number 10/803,507

**Filing Date** 3/18/2004

First Named Inventor Storer

## Art Unit

Examiner Name Jeanglaude

**Attorney Docket Number**

## U. S. PATENT DOCUMENTS

## FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

<sup>1</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>2</sup>Applicant's unique citation designation number (optional). <sup>3</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>4</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>5</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>7</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Complete if Known

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 3

of 5

Application Number	10/803,507
Filing Date	03/18/2004
First Named Inventor	Storer
Art Unit	
Examiner Name	Jeanglaude

Attorney Docket Number

NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		AJTAI, Burns, Fagin, and Long [2002]. "Compactly Encoding Unstructured Inputs with Differential Compression", J. of the ACM 49:3, 318–367. (U.S.)
		APOSTOLICO, Browne, and Guerra [1992]. "Fast Linear-Space Computations of Longest Common Subsequences", Theoretical Computer Science 92:1 3–17 (U.S.)
		BURNS and Long [1997]. "A Linear Time, Constant Space Differencing Algorithm", Proc. IEEE Int. Conf. on Perform., Comp., and Communications. (U.S.)
		BURNS and Long [1997b]. "Efficient Distributed Backup and Restore with Delta Compression", Workshop on I/O in Parallel and Distributed Systems (IOPADS). (U.S.)
		BURNS, Stockmeyer, and D. D. E. Long [2002]. "Experimentally Evaluating In-Place Delta Reconstruction", NASA Conf. on Mass Storage Sys. and Tech. (U.S.)
		CORMODE, Paterson, Sahinalp and Vishkin [2000]. "Communication Complexity of Document Exchange", Proc. 11th Symp. on Discrete Algorithms 197–206 (U.S.)
		FACTOR, Sheinwald, and Yassour [2001]. "Software Compression in the Client/Server Environment", Proc. Data Compression Conf., IEEE Comp. Society Press 233–242 (U.S.)
		FRASER and Myers [1987]. "An Editor for Revision Control", ACM Transactions on Programming Languages and Systems 9:2, 277–295. (U.S.)
		HUNT, Vo, and Tichy [1998]. "Delta algorithms: An Empirical Analysis", ACM Trans. on Software Engineering and Methodology 7, 192–214. (U.S.)
		HUFFMAN [1952]. "A Method for the Construction of Minimum-Redundancy Codes", Proceedings of the IRE 40, 1098–1101. (U.S.)

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		Application Number	10/803,507
		Filing Date	03/18/2004
		First Named Inventor	Storer
		Art Unit	
		Examiner Name	Jeanglaude
Sheet 4	of 5	Attorney Docket Number	

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		LEMPEL and Ziv [1976]. "On the Complexity of Finite Sequences", IEEE Transactions on Information Theory 22:1, 75–81. (U.S.)	
		MILLER and Myers [1985]. "A File Comparison Program", Software—Practice and Experience 15:11, 1025–1040. (U.S.)	
		RICK [1995]. "A New Flexible Algorithm for the Longest Common Subsequence Problem", Proc. 6th Annual Symposium on Combinatorial Pattern Matching, Espoo, Finland, <del>5-7</del> (U.S.) 340-351	
		SHAPIRA, and Storer [2002]. "Edit Distance with Move Operations", Proceedings Conference of Combinatorial Pattern Matching (CPM), Springer, 85–98. (U.S.)	
		REICHENBERGER [1991]. "Delta Storage for Arbitrary Non-Text Files", Proc. 3rd Int. Workshop on Software Configuration Management, Trondheim, Norway, 12–14. (U.S.)	
		SHAPIRA, and Storer [2003]. "In-Place Differential File Compression", Proc. 2003 Data Comp. Conf. (published March 25, 2003), IEEE Comp. Soc. Press, 263–272 (U.S.)	
		STORER and T. G. Szymanski [1978]. "The Macro Model for Data Compression", Proc. 10th Annual ACM Symposium of the Theory of Computing, San Diego, CA, 30–39 (U.S.)	
		STORER and Szymanski [1982]. "Data Compression Via Textual Substitution", Journal of the ACM 29:4, 928–951. (U.S.)	
		STORER [1988]. Data Compression: Methods and Theory, Computer Science Press (a subsidiary of W. H. Freeman Press). (U.S.)	
		STORER [2002]. "An Introduction to Data Structures and Algorithms", Birkhauser – Springer. (U.S.)	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

<p>Substitute for form 1449/PTO</p> <p><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></p> <p><i>(Use as many sheets as necessary)</i></p>		<b>Complete if Known</b>	
		Application Number	10/803,507
		Filing Date	03/18/2004
		First Named Inventor	Storer
		Art Unit	
		Examiner Name	Jeanglaude
Sheet 5	of 5	Attorney Docket Number	

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		TICHY [1984]. "The String to String Correction Problem with Block Moves", ACM Transactions on Computer Systems 2:4, 309–321. (U.S.)	
		WAGNER and Fischer [1973]. "The String-to-String Correction Problem", Journal of the ACM 21:1, 168–173. (U.S.)	
		WEINER [1973]. "Linear Pattern Matching Algorithms", Proceedings of the 14th Annual IEEE Symposium on Switching and Automata Theory, 1–11. (U.S.)	
		ZIV and Lempel [1977]. "A Universal Algorithm for Sequential Data Compression", IEEE Transactions on Information Theory 23:3, 337–343. (U.S.)	
		ZIV and Lempel [1978]. "Compression of Individual Sequences Via Variable-Rate Coding", IEEE Transactions on Information Theory 24:5, 530–536. (U.S.)	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<p>Substitute for form 1449/PTO</p> <p><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></p> <p><i>(Use as many sheets as necessary)</i></p>		<b>Complete if Known</b>	
		<b>Application Number</b>	10/803,507
		<b>Filing Date</b>	03/18/2004
		<b>First Named Inventor</b>	Storer
		<b>Art Unit</b>	
		<b>Examiner Name</b>	Jeanglaude
Sheet	1	of	1
		Attorney Docket Number	

## NON PATENT LITERATURE DOCUMENTS

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

Applicant's unique citation designation number (optional).  Applicant is to place a check mark here if English language Translation is attached.  
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.